

## **CLAIMS**

1. A rotating diverter head comprising:

a bowl member having a first bore aligned on a central axis therethrough and a second bore located substantially transverse of the central axis;

a housing located substantially within the bowl member including first rotational means to rotate the housing relative to the bowl member and first sealing means to sealably engage the housing upon a drill pipe when the drill pipe is inserted through the first bore; and

an inlet flange for connecting the bowl member to a blow out preventer stack, the flange including second rotational means to selectively rotate the bowl member about the central axis.

2. A rotating diverter head as claimed in Claim 1 wherein the second rotational means comprises interconnected screw threads between the flange and the bowl member.

3. A rotating diverter head as claimed in Claim 1 or Claim 2 wherein the flange includes second sealing means to prevent the egress of fluid from the first bore through the second rotational means.

4. A rotating diverter head as claimed in any preceding Claim wherein the flange includes locking means for preventing rotational movement of the bowl member with respect to the flange when the second bore is aligned.

5. A rotating diverter head as claimed in Claim 4 wherein the locking means comprises a locking ring arranged around the bowl member and engageable on the screw threads.

6. A rotating diverter head as claimed in any preceding Claim wherein the head includes a locking cap located over the housing and engageable to the bowl.

7. A rotating diverter head as claimed in Claim 6 wherein an actuator is mounted on the head to remotely lock and unlock the cap.
8. A bowl for use in a rotatable diverter head, the bowl comprising a substantially cylindrical body having a bore therethrough adapted for receiving a housing, rotatable therein and sealable to a drill pipe passed therethrough, and an inlet flange, the body and flange being rotatably coupled such that the body rotates on a longitudinal axis of the bore when the flange is attached to a blow out preventer stack.
9. A bowl as claimed in Claim 8 wherein the body and the flange are rotatably coupled by interconnected screw threads on an outer surface of the body and an inner surface of the flange.
10. A bowl as claimed in Claim 8 or Claim 9 wherein the flange includes sealing means to prevent the egress of fluid from the bore through the rotational coupling.
11. A bowl as claimed in any one of the Claims 8 to 10 wherein the flange includes locking means for preventing rotational movement of the body with respect to the flange when desired.
12. A bowl as claimed in Claim 11 wherein the locking means comprises a locking ring arranged around the body and engageable on the screw threads.
13. A method of connecting a rotating diverter head to a return fluid line at a blow out preventer stack, the method comprising the steps:
  - (a) connecting an inlet flange of the diverter head to an outlet of the blow out preventer stack;
  - (b) rotating the diverter head with respect to the blow out preventer stack to align a side outlet of the head with a return fluid line; and
  - (c) connecting the side outlet to the return fluid line.

14. A method as claimed in Claim 13 further including the step of locking the diverter head in position to prevent rotation of the diverter head relative to the blow out preventer after the side outlet is aligned.

15. A method as claimed in Claim 13 or Claim 14 further including the step of remotely actuating a release mechanism to release a cap on the diverter head to adjust the head against a drill pipe passing therethrough